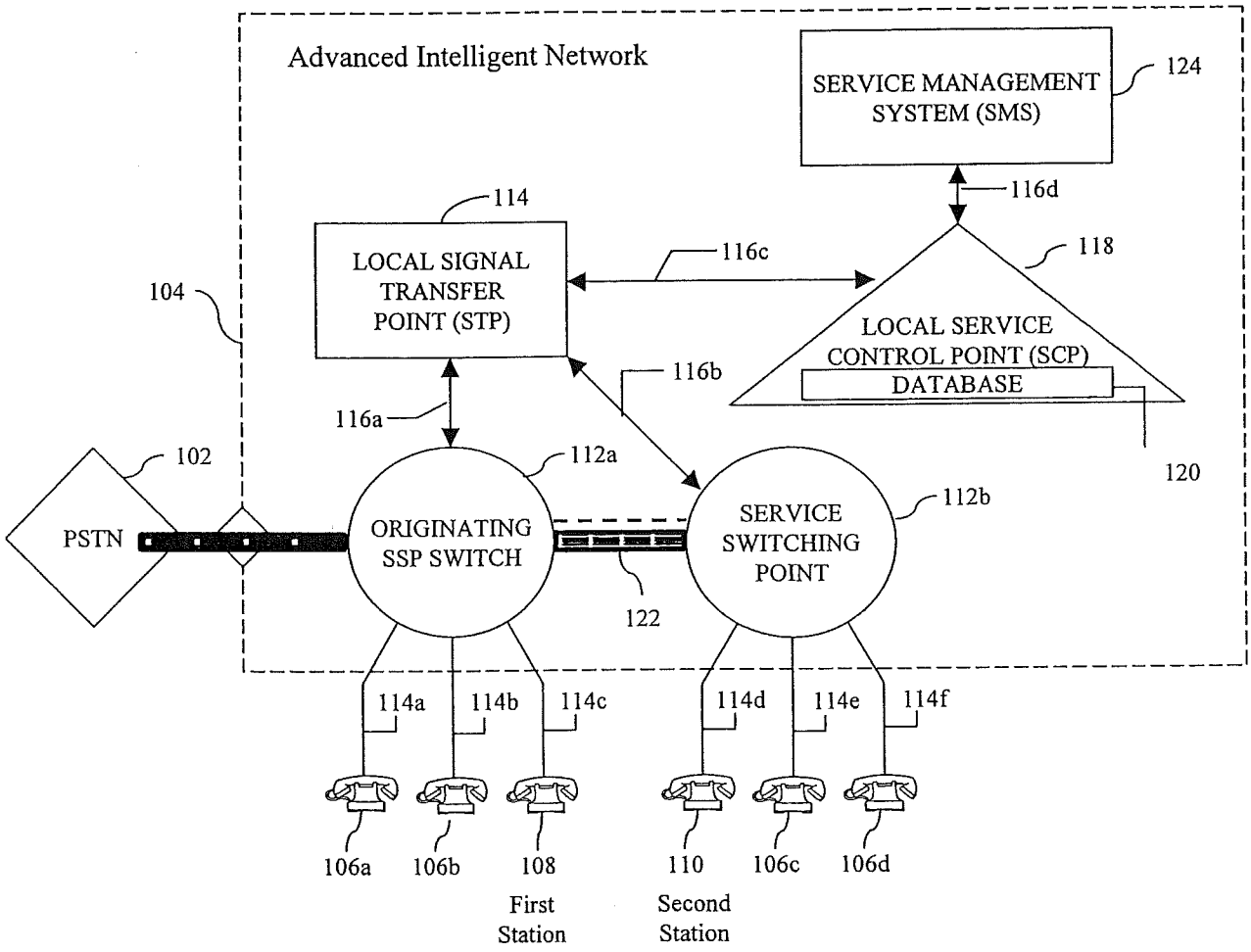

FIG. 1 – Prior Art

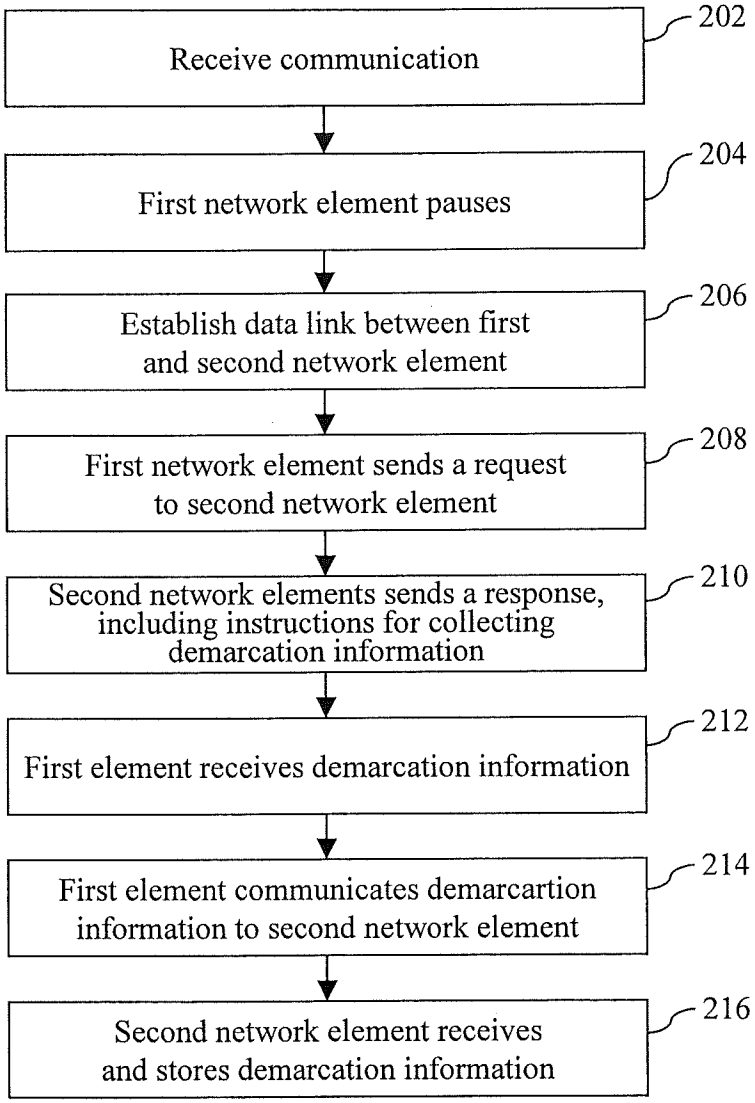
Receive communication
202
First network element pauses
204
Establish data link between first and second network element
206
First network element sends a request to second network element
208
Second network elements sends a response, including instructions for collecting demarcation information
210
First element receives demarcation information
212
First element communicates demarcartion information to second network element
214
Second network element receives and stores demarcation information
216

FIG. 2

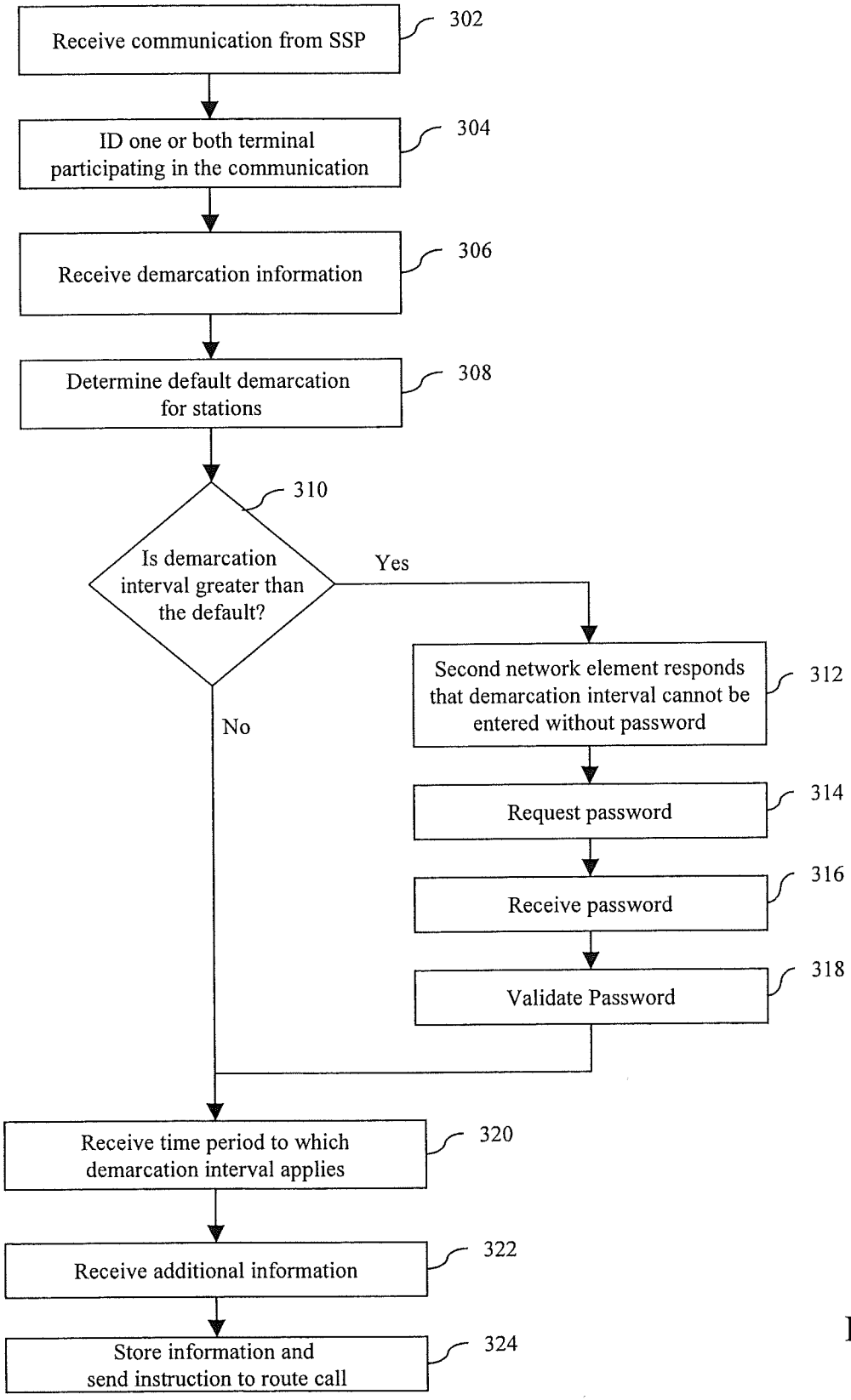
Receive communication from SSP
302
ID one or both terminal participating in the communication
304
Receive demarcation information
306
Determine default demarcation for stations
308
310
Is demarcation interval greater than the default?
Yes
No
Second network element responds that demarcation interval cannot be entered without password
312
Request password
314
Receive password
316
Validate Password
318
Receive time period to which demarcation interval applies
320
Receive additional information
322
Store information and send instruction to route call
324

FIG. 3

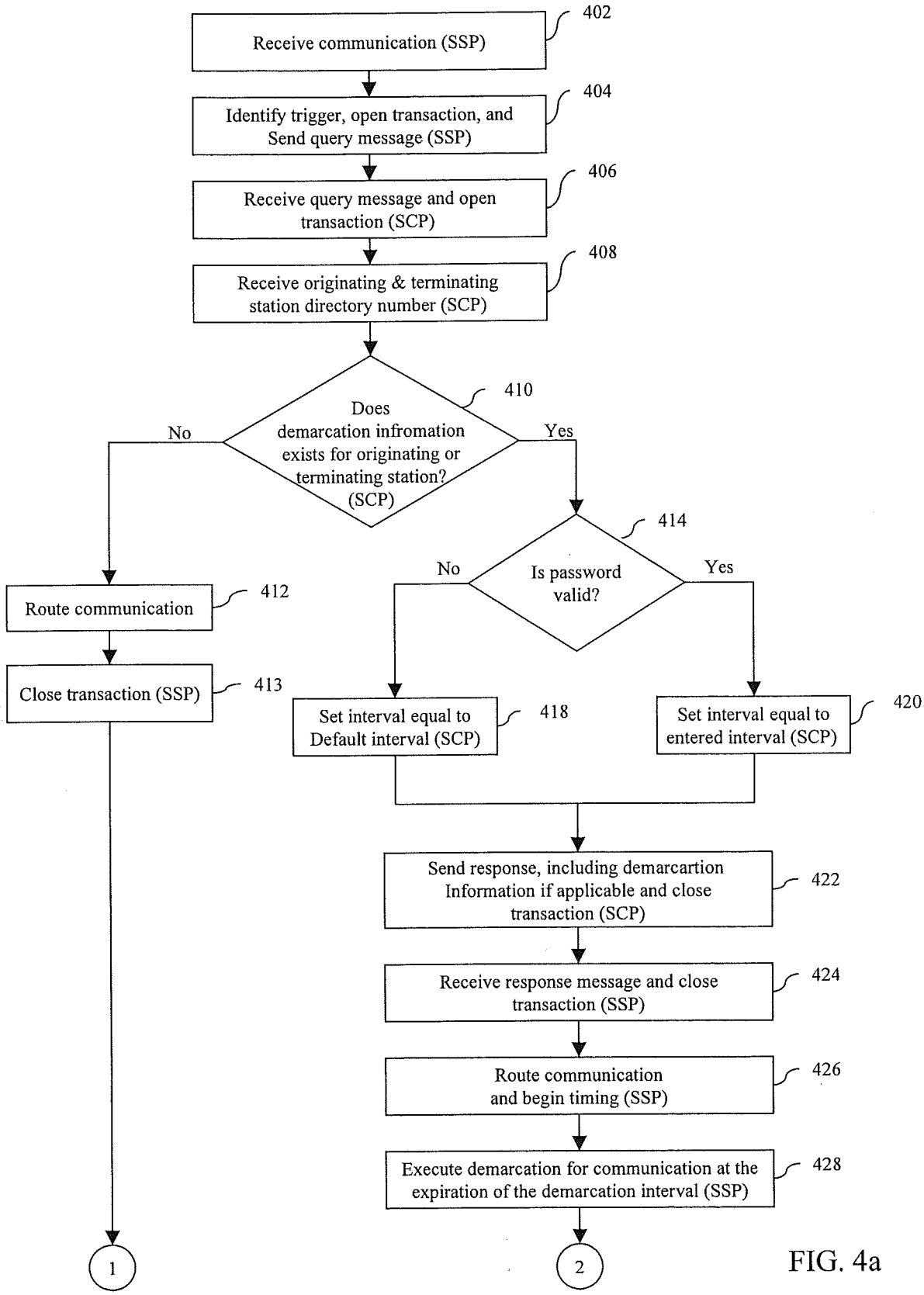
Receive communication (SSP)
402
Identify trigger, open transaction, and Send query message (SSP)
404
Receive query message and open transaction (SCP)
406
Receive originating & terminating station directory number (SCP)
408
Does demarcation infromation exists for originating or terminating station? (SCP)
410
No
Yes
Route communication
412
Close transaction (SSP)
413
Is password valid?
414
No
Yes
Set interval equal to Default interval (SCP)
418
Set interval equal to entered interval (SCP)
420
Send response, including demarcartion Information if applicable and close transaction (SCP)
422
Receive response message and close transaction (SSP)
424
Route communication and begin timing (SSP)
426
Execute demarcation for communication at the expiration of the demarcation interval (SSP)
428
1
2

FIG. 4a

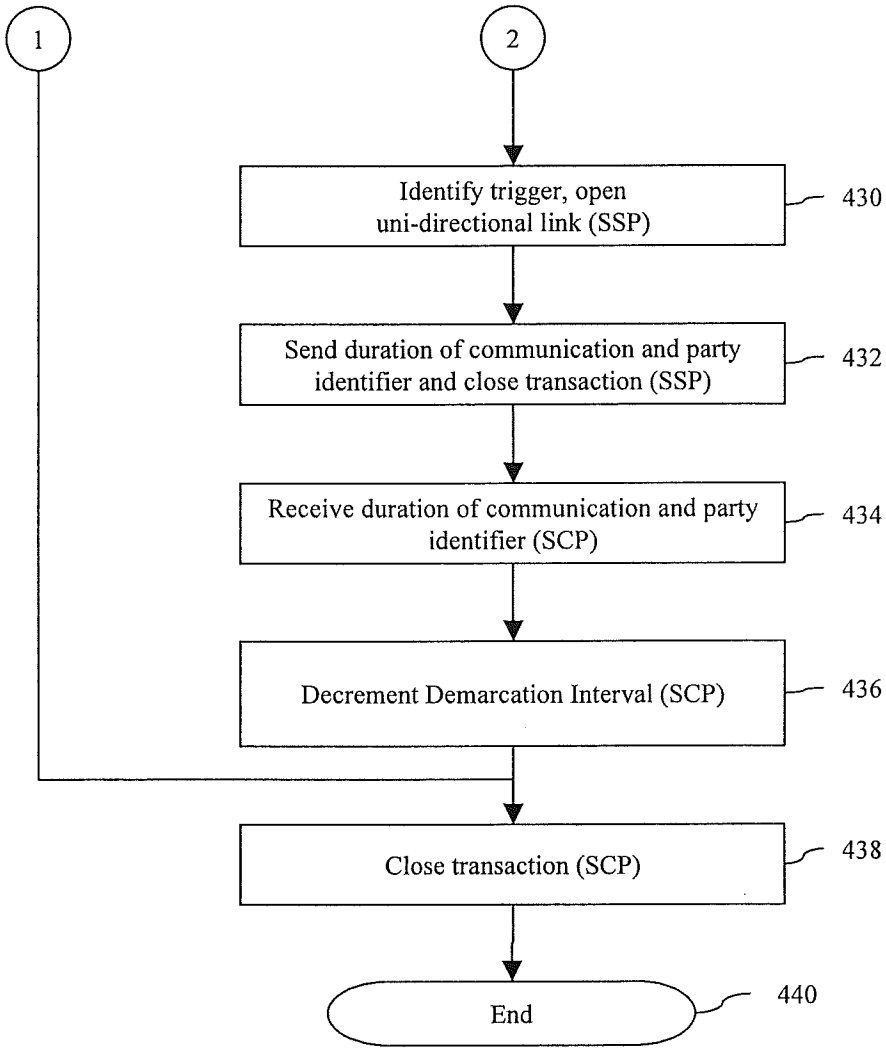
1
2
Identify trigger, open uni-directional link (SSP)
430
Send duration of communication and party identifier and close transaction (SSP)
432
Receive duration of communication and party identifier (SCP)
434
Decrement Demarcation Interval (SCP)
436
Close transaction (SCP)
438
End
440

FIG. 4b

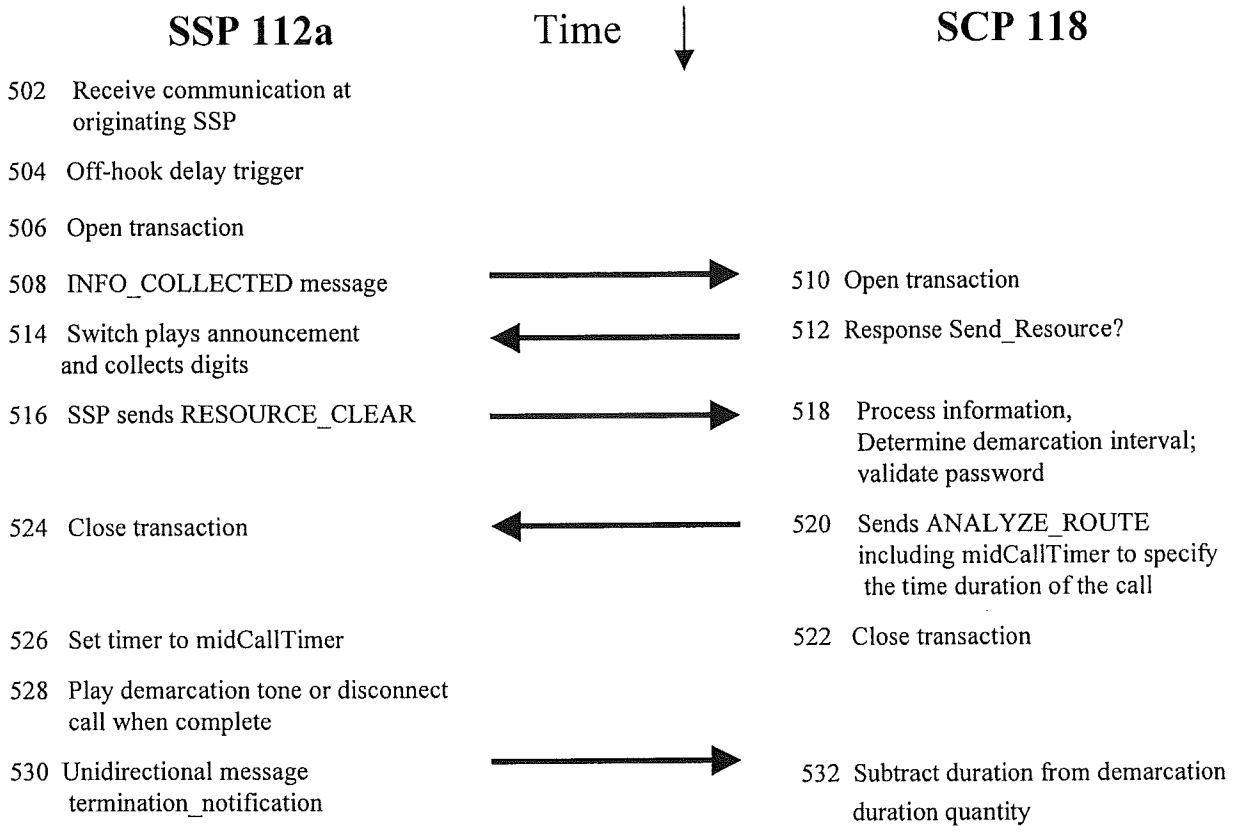
SSP 112a
Time
SCP 118
502 Receive communication at originating SSP
504 Off-hook delay trigger
506 Open transaction
508 INFO_COLLECTED message
510 Open transaction
514 Switch plays announcement and collects digits
512 Response Send_Resource?
516 SSP sends RESOURCE_CLEAR
518 Process information, Determine demarcation interval; validate password
524 Close transaction
520 Sends ANALYZE_ROUTE including midCallTimer to specify the time duration of the call
526 Set timer to midCallTimer
522 Close transaction
528 Play demarcation tone or disconnect call when complete
530 Unidirectional message termination_notification
532 Subtract duration from demarcation duration quantity

FIG. 5

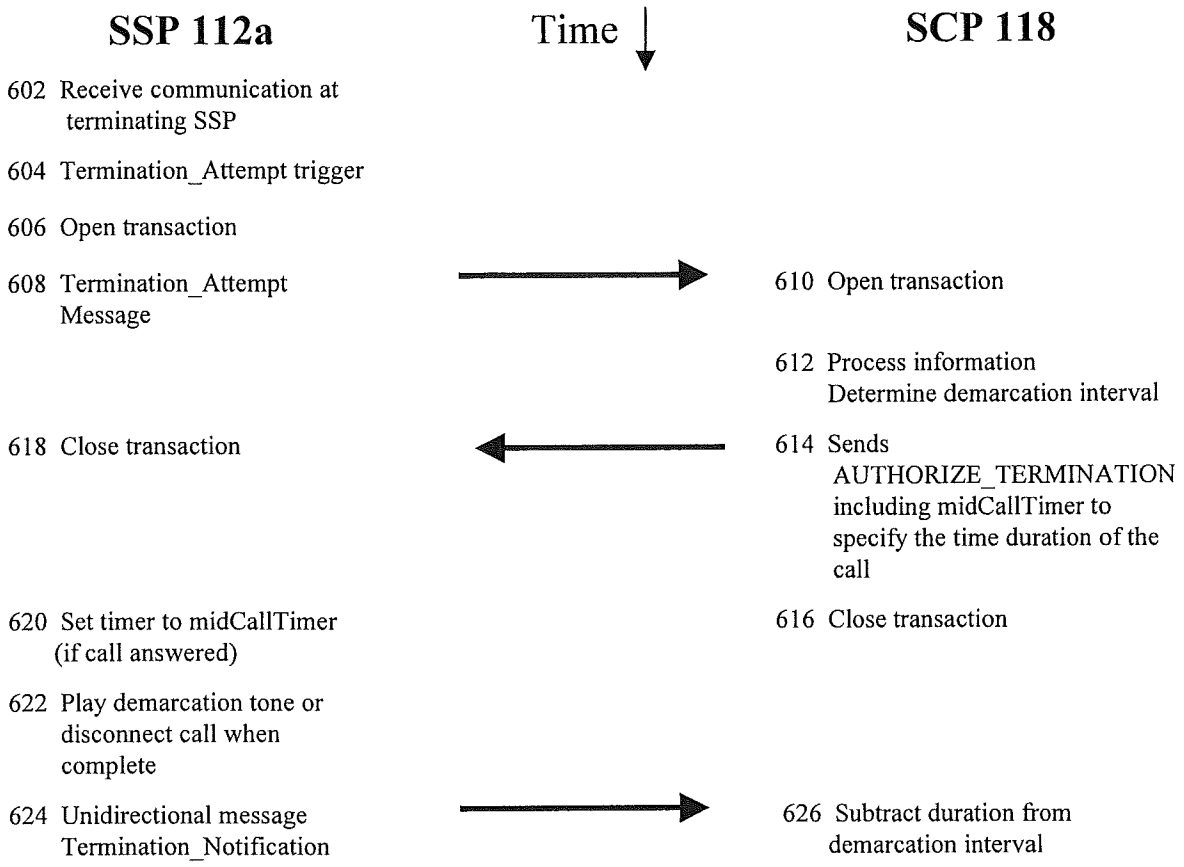
SSP 112a
Time
SCP 118
602 Receive communication at terminating SSP
604 Termination_Attempt trigger
606 Open transaction
608 Termination_Attempt Message
610 Open transaction
612 Process information Determine demarcation interval
618 Close transaction
614 Sends AUTHORIZE_TERMINATION including midCallTimer to specify the time duration of the call
620 Set timer to midCallTimer (if call answered)
616 Close transaction
622 Play demarcation tone or disconnect call when complete
624 Unidirectional message Termination_Notification
626 Subtract duration from demarcation interval

FIG. 6

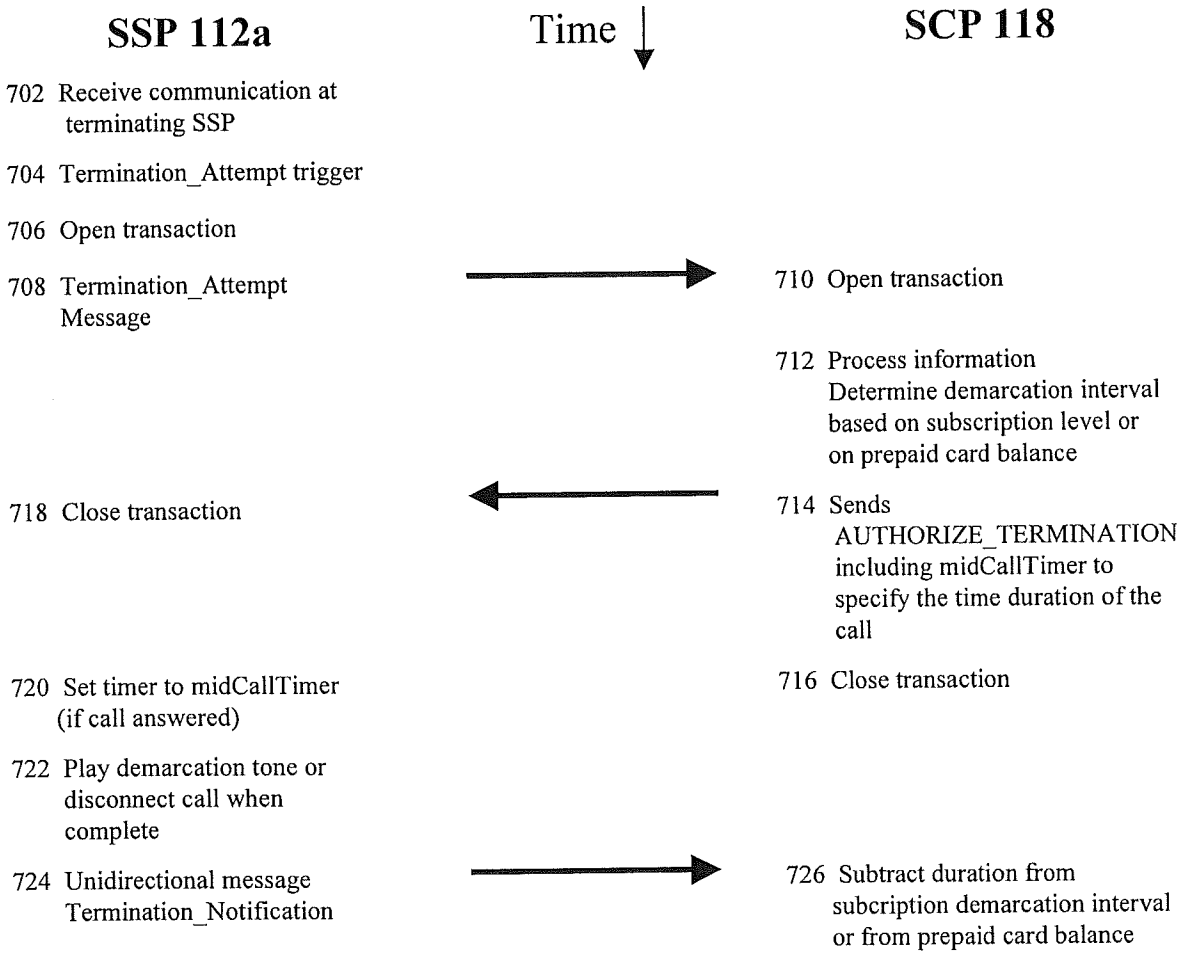
SSP 112a
Time
SCP 118
702 Receive communication at terminating SSP
704 Termination_Attempt trigger
706 Open transaction
708 Termination_Attempt Message
710 Open transaction
712 Process information Determine demarcation interval based on subscription level or on prepaid card balance
718 Close transaction
714 Sends AUTHORIZE_TERMINATION including midCallTimer to specify the time duration of the call
716 Close transaction
720 Set timer to midCallTimer (if call answered)
722 Play demarcation tone or disconnect call when complete
724 Unidirectional message Termination_Notification
726 Subtract duration from subcription demarcation interval or from prepaid card balance

FIG. 7